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Received March 19th

1825

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Practical Essay

on

Saunders,

respectfully submitted to the
Dean and Faculty of the University
of Pennsylvania, by Wm. Yates
of

Charleston South Carolina

for the

Degree of M.D.

1
Icterus or Jaundice.

Jaundice is one of the diseases most commonly to be met with among men engaged in the pursuit of literature, and among persons who from the nature of their daily avocations lead sedentary and inactive lives. The drunkard too is frequently the victim of its visitation, and by him it is most to be dreaded, as in him it is often induced by hepatic tumour, or some organic disease of the adjacent viscera, which is the most unfavourable kind. It is confined to either sex, though it occurs most frequently among women, and oftener among adults than children.

It is supposed by some writers that persons of a bilious diathesis are predisposed to this disease. The excessive heat of tropical climates by the influence it possesses over the liver in increasing and vitiating its secretions do no doubt dispose to it likewise.

Jaundice is characterised by a yellowness of the skin over the whole body, and of the adnata of the eyes, by red urine which tinges linen yellow, by white or grey clayey stools, and constipated bowels.

This disease is induced by an absorption of bile into the circulation, which passes into the minutest vessels, and pervades every portion of the body, giving rise to the yellowness above mentioned, which is most remarkable about the roots of the nails, and the external coat of the eyes. This is caused either by an increased secretion of bile too great to be conveyed away by the ordinary channel of the *pori biliarii* into the hepatic duct, and from thence through the common duct into the duodenum, which they are fully capable of doing under ordinary circumstances; or by obstructions of the *ductus communis choledochus*: in both of which cases the bile is thrown back

the number of students in a school is
not the only thing that is to be
considered. It is also necessary to
consider the quality of the
teaching. The teacher should be
well qualified and should have
the ability to inspire his
pupils. The school should also
have a good system of discipline
and should be well equipped with
books and other necessary
materials. The school should also
have a good system of
examinations and should be
well managed. The school should
also have a good system of
records and should be well
maintained. The school should
also have a good system of
communication and should be well
connected with the community.

upon the liver, where it is taken up by the absorbents, or regurgitates into the veins, and thence carried into the circulation. This interruption is attributed to inflammation of the liver or pylorus extending to the cyst and ductus communis the ledocus, thickening their coats and straightening or wholly obliterating their diameters. By scirrhous tumours of the liver, pylorus, or pancreas closing the canal of the ducts by mechanical pressure. By the gravid tumours encroaching upon the cavity of the abdomen.

But by far the most common causes of obstruction are the presence of concretions in the gall-bladder and ducts, and in the common duct inspissated bile in, and spasmodic stricture of the common duct; although some deny the possibility of the latter occurring, on the ground of its being a membranous tube and wholly inelastic; but we cannot see why stricture may not occur here as well

as in the urethra. And may not concretions in the gall-bladder and duct by irritation produce stricture in the choledochus?

Excessive vomiting has induced the disease by forcing the gall stone out of the cyst where it had remained inert, into the common canal. Substances in the duodenum by blocking up the orifice of the duct as it penetrates that intestine have been known to bring on this affection. The passions of the mind, and the abuse of spirituous liquors are enumerated among the exciting causes.

The formation of gall-stones is accounted for on the supposition of vitiation of the bile, of stagnation and inspissation; the absorbents removing the thinner and more fluid portions leave the grosser parts behind which aggregating form calculi.

For the sizes and variety of appearances of biliary calculi, see Morgagni's large work,

and for their chemical composition we must refer to Saunders on the Liver.

Jaundice commences with languor, inactivity, loathing of food, flatulency, acridities in the stomach and bowels, attended with constipation or looseness. As it advances the skin and conjunctiva of the eyes take on a yellow hue, the tongue is white, the mouth affected with a disagreeable bitter taste, nausea and sometimes vomiting ensue, the latter however is not always present. A dull obtuse and sometimes an acute pain is felt in the epigastrium extending sometimes to the spine, which is increased by pressure with the fingers. The pulse is usually slow and full: when the pain in the epigastrium is very great, it becomes frequent, full and hard, and is attended with other symptoms of pyrexia. When the disease does not yield to medicine and there exists chronic affection

of the liver, a neighbouring viscus, anæmia and sometimes ascites are apt to appear.

Ectechia and macula are occasionally found on different parts of the body. The skin assumes a deep golden colour, or a brown, or mottled appearance, and is exceedingly irritable. At this period of the disease there exists a great degree of torpor, followed by low muttering delirium, with picking at the bed clothes. The pulse becomes slower and more feeble, and a great disposition to hemorrhagy prevails, even to such a degree that blood often flows from the mouth, nose and anus. In this state the patient when roused will take food, but he still continues to sink, and passes among the bed clothes dark fluid evacuations. A troublesome hiccup comes on and convulsions and death soon ensue.

It is necessary, besides the general view of the symptoms of this disease already given, to notice them as they appear modified by the different sets of causes: were we to neglect this, error would most probably be the consequence in our treatment.

When Jaundice arises from visseral tumours obstructing by pressure the canal of the ductus communis cholidochus, the symptoms of inflammation will be found to have preceded those of Jaundice. The pain varies very little in degree, and is gradual in its approaches. There is also some previous emaciation, and the pulse is above an hundred strokes to the minute.

When the disease arises from spasms or gall-stones. There is sudden pain, which is very acute, about the epigastrium attended with nausea, retchings, and sometimes vomiting accompanied with shivering, and what is remarkable, the pulse does not

in these cases exceed one hundred strokes in the minute, often not more frequent and sometimes even slower than natural. The pain is most acute at the pit of the stomach, but extends to the back. There is frequently also a pain in the shoulder. There is much restlessness, with irregular spasmodic twitching in various parts of the body. When biliary calculi are lodged in or are passing through the ducts, acute lancinating pains are felt in the region of the duct, which will sometimes intermit and return again. The patient cannot lie down but sits with his body bent, this posture appearing to afford some relief from the agonising pain which he suffers. The stomach as before stated is exceedingly irritable, and bile or a dark fluid resembling black vomit is sometimes ejected.

The first part of the book is
a history of the city of
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When Jaundice arises from visceral tumours obstructing the ducts, as it implies, chronic affection of those organs, from the known obstinacy of such affections we can expect but little success from the best conducted plan of treatment.

When it arises from gall-stones obstructing the *Cholodochus communis*, or when from spasmodic stricture of the same, where they have not existed very long, and the constitution of the patient is not much impaired, our medicines may effect a favourable termination of the complaint.

When it arises during pregnancy, parturition by removing the cause, will most generally put a stop to the disease also.

When it is produced by excessive secretion, gentle evacuants by removing the bile from the duodenum through the alimentary canal, and the mild tonics, by invigorating

the general system and restoring the healthy action of the liver will cause the complaint to disappear. When the uneasiness at the praecordia gradually abates, and the appetite, strength, and digestive powers return, and we can easily procure large stools and copious urinary discharges free from bile and of a natural colour, especially if the subject be young and of vigorous habit, and the disease has come on suddenly, we may hope for a speedy recovery. But should the pain in the epigastrium be violent, attended with a quised pulse, loss of strength and flesh, with anasarcaous swelling of the extremities, and should there be present, dulness watchfulness, chilliness and melancholy, accompanied with hiccup and profuse sweat or hemorrhage, it is likely to terminate in confirmed ascites or death.

Post mortem examinations exhibit.

A yellow tinge suffused through the cellular substance, the fat, the bones and cartilages, and even in the substance of the brain itself.

The liver enlarged and otherwise diseased.

The gall-bladder and duct, the pylorus, pancreas, and duodenum presenting some unnatural appearance; most usually affected in their structure. Concretions in the pore biliary, in the common duct and in the gall-bladder. In a case which I examined. There was enlargement of the liver, thickropy bile in the galley, and a large lump of inspissated bile in the orifice of the cystic duct at its exit from the cyst.

In another case, I found besides an enlargement of the liver gall-stones of very irregular forms, of a dark green colour, and when dried very friable. There were lying loosely in the fundus and orifice of the cyst, together with about an ounce of castor oil mingled with mucus. The stomach contained a

similar fluid, which the patient had swallowed a few hours previous to his dissection.

As Jaundice is more or less connected with or dependant upon some morbid state of the liver, when first called to a patient labouring under this affection, we should always direct our attention to this viscus, to ascertain if possible what may be its real condition.

This is the more necessary as our treatment is predicated upon it.

The cure is to be attempted. First by restoring the interrupted passage of the bile into the duodenum and gall-bladder. Secondly by conveying it through the intestines out of the body. and thirdly by palliating symptoms as they may arise.

Whether the disease originate from biliary calculi, or spasmodic stricture interrupting the passage of the bile through the ducts nearly the same plan of treatment may be

adopted. Large emetics distending the ducts very much, whilst lodging in or passing through them not only excite great pain but frequently also a great degree of inflammation. In this case there is generally much fever. To obviate this, we must resort to copious venesection if the patient can bear it, in this the pulse, strength, and degree of pain which he suffers must direct us. He is next to be put into a warm bath until some relaxation is produced. He is then to be conveyed to bed, and an opiate given him; which may be repeated every four or six hours until ease be procured: it should be given in the pill form, as fluids by their bulk are apt to excite an irritable stomach to reject them. We may apply at the same time warm fomentations to the seat of pain such as flannel cloths wrung out of warm spirits &c; and as an auxiliary emollient clysters may be administered.

1870
The first of the series of lectures
on the history of the
United States was given
by Mr. [Name] on the
subject of the
early history of the
country. The lecture
was very interesting
and well attended.
The next lecture
was given by Mr. [Name]
on the subject of the
growth of the
country. The lecture
was also very
interesting and
well attended.
The third lecture
was given by Mr. [Name]
on the subject of the
development of the
country. The lecture
was very
interesting and
well attended.
The fourth lecture
was given by Mr. [Name]
on the subject of the
future of the
country. The lecture
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The fifth lecture
was given by Mr. [Name]
on the subject of the
present state of the
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The sixth lecture
was given by Mr. [Name]
on the subject of the
past history of the
country. The lecture
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The eighth lecture
was given by Mr. [Name]
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present state of the
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The ninth lecture
was given by Mr. [Name]
on the subject of the
past history of the
country. The lecture
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The tenth lecture
was given by Mr. [Name]
on the subject of the
future of the
country. The lecture
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Sometimes have been recommended with the view of pushing forward the biliary calculi, but they are objectionable; because they may by the violence of their action increase the already existing inflammation, or produce a rupture of the duct. Nauseating doses of these substances however may be given with benefit in cases of spasmodic stricture, which they have a tendency to relieve by their relaxing power.

Purgatives of a drastic kind by removing constipation, and eliciting a new secretion of bile to flow into the ductus communis choledochus, may so distend it as to float along with it the obstructing body, (whether a gall-stone or inspissated bile) into the duodenum and through the intestinal canal. For this purpose I should suppose mercurials peculiarly adapted, from their known influence upon the hepatic system; they should be combined with some active cathartic as Salap

can many be. When Jaundice arises from some chronic affection of the liver or adjacent viscera, active purgatives might prove injurious by inducing too great debility. In such instances, gentle aperients to keep the bowels soluble, and calomel administered, in small doses, so as gradually to induce its alterant impression, will perhaps be found as serviceable as any thing we can do. Exercise on horseback during the intermission of the paroxysms are recommended. Electrical shocks through the region of the liver have been attended with success.

If Jaundice should arise from acute inflammation of the liver, general and topical bleeding, saline purgatives, and blisters applied over the region of this viscus, are the most likely means of affording relief. If the inflammation become chronic mercurials are indicated.

To relieve the distressing symptoms which occur in this disease, viz: the epigastric pain and

tractability of the stomach; venesection, or the warm bath if the patients strength will admit of them, opium in pills, or spts of turpentine in doses of thirty or forty drops frequently repeated as the case may seem to require, or lastly a blister large enough to cover the greater part of the abdomen will be found very serviceable.

When the disease is attended with anasarca diuretics are advised. As the disposition to dropy here is the consequence of general debility, the system calls for the aid of bitters, chalybeates, mineral waters, a nutritive diet and moderate exercise to support it.

A spontaneous diarrhoea sometimes occurs, and marks a crisis in the disease; which is not to be checked suddenly unless it induces too great debility, when it may be accomplished by the usual means, viz cataplasms only.

tures, opials &c.

There is a variety of Jaundice consequent upon the Yellow Fever. When this dreadful malady quits its victim, driven out by powerful medicines, or the salutary efforts of the system, or by the conjoined influence of both forces, he is left in a state of great prostration. It is in this state that Jaundice appears, with no acute symptoms. A gradual discoloration of the skin takes place, which after awhile becomes of a deep yellow hue, the conjunctiva are affected in like manner as in the other forms of the disease; and the patient complains of nothing but weakness. It requires no active remedies. The mild tonics answering every beneficial purpose. The yellowness diminishes as the patient's strength returns.

A number of the successful cases of Yellow Fever which were admitted into the Charleston Workhouse the last summer terminated in

this manner. The tonics used in these instances were a pint infusion of Quassia with \mathfrak{zj} of the carb. potassa during twenty hours, for several days in succession, a \mathfrak{zj} Colombo root in wine three times a day; at the same time allowing the patient a diet of arrowroot, and as his appetite and strength of digestion returned a chicken made into soup.

In these cases I believe the disease was induced by a general relaxation of the system producing undue secretion of bile.

Perhaps too the liver is stimulated more than usual by a revulsion of blood into its vessels, which during the paroxysm of the fever had determined to the stomach and other organs.

Dissections of all the subjects who died of Yellow Fever that I had an opportunity of examining would seem to support this opinion.

Their livers were found swollen and pale and almost destitute of blood; whilst their

Stomachs were highly injected, and the veins
on its surfaces very much enlarged. Their
lungs engorged and the ventricles of the
brain containing a serous fluid, and some case
blood.

Finis.

December 1824

San Francisco, California
March 1st 1881
Dear Sir,
I have the honor to acknowledge
the receipt of your letter of
the 28th inst. and in reply
to inform you that the same
has been forwarded to the
proper authorities for their
consideration.